CLAIMS

1. A method for at least one of encoding and decoding an image, comprising:

   (a) identifying adjacent regions in said image;

   (b) examining coding parameters for said adjacent regions; and

   (c) selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

   wherein identifying D.C. and A.C. components for said adjacent regions and said selectively filtering based upon a similarity of said D.C. and said A.C. components.

2. A method for at least one of encoding and decoding an image, comprising:

   (a) identifying adjacent regions in said image;

   (b) examining coding parameters for said adjacent regions;

   (c) selectively filtering at least a portion of said region proximate boundary between said adjacent regions based upon said coding parameters;

   (d) identifying similarities between coding parameters in a luminance channel of said adjacent regions; and

   (e) controlling filtering for both the luminance channel and a chrominance channel in said image according to similarities in the luminance channel.

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3.   A method for at least one of encoding and decoding an image, said method comprising:

(a)   identifying adjacent regions in said image;

(b)   examining coding parameters for said adjacent regions; and

(c)   selectively filtering at least a portion of said region proximate the boundary between said adjacent regions based upon said coding parameters;

wherein said selectively filtering is based upon determining whether at least one of said adjacent regions are intra-coded.

4.   A method for at least one of encoding and decoding an image, comprising:

(a)   identifying adjacent regions in said image;

(b)   examining coding parameters for said adjacent regions;

(c)   selectively filtering at least a portion of said regions proximate the boundary between said adjacent regions based upon said coding parameters,

wherein said selectively filtering is based upon determining whether at least one of said adjacent regions is encoded with residuals.

5.   A method for at least one of encoding and decoding an image, comprising:

(a)   identifying adjacent regions in said image;

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(b)   examining coding parameters for said adjacent regions; and

(c)   selectively filtering at least a portion of said regions proximate a

boundary between said adjacent regions based

upon said coding parameters,

wherein said selectively filtering is based upon determining whether at least

two of said adjacent regions are predicted based upon two different reference

frames.

6.   A method for at least one of encoding and decoding an image, comprising:

(a)   identifying adjacent regions in said image;

(b)   examining coding parameters for said adjacent regions; and

(c)   selectively filtering at least a portion of said region proximate

the boundary between said adjacent regions based upon said coding

 parameters,

wherein said selectively filtering is based upon determining whether at least

two of said adjacent regions have an absolute difference of said motion vectors

of said at least two adjacent regions at least one of grater than or less than a

threshold value.

7.   The method of claim 6 wherein said absolute difference is in a first

direction.

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8.   The method of claim 7 wherein said absolute difference is also in a second direction different than said first direction.

9.   A method for at least one of encoding and decoding an image, comprising:

(a)   identifying adjacent regions in said image;

(b)   examining coding parameters for said adjacent regions; and

(c)   selectively filtering at least a portion of the region proximate a boundary between said adjacent regions based upon said coding parameters,

wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded.

10.   A method for at least one of encoding and decoding an image, comprising:

(a)   identifying adjacent regions in said image;

(b)   examining coding parameters for said adjacent regions; and

(c)   selectively filtering at least a portion of said regions proximate the boundary between said adjacent regions based upon said coding parameters,

wherein said selective filtering uses a first filter when said adjacent regions are intra-coded and a second filter when said at least one of said adjacent regions is encoded with said residuals.

11.   A method for at least one of encoding and decoding an image, comprising:

   (a)   identifying adjacent regions in said image;

   (b)   examining coding parameters for said adjacent regions; and

   (c)   selectively filtering at least a portion of said region proximate

           the boundary between said adjacent regions based upon said coding

           parameters;

wherein said selective filtering uses a first filter when said adjacent regions are

intra-coded, a second filter when said at least one of said adjacent regions is

encoded with said residuals, and a third filter when said at least two of said

adjacent regions are predicted based upon said two different reference frames.

12.   A method for at least one of encoding and decoding an image, comprising:

   (a)   identifying adjacent regions in said image;

   (b)   examining coding parameters for said adjacent regions; and

   (c)   selectively filtering at least a portion of the region proximate

           the boundary between said adjacent regions based upon said coding

           parameters,

wherein said selective filtering uses a first filter when said adjacent regions are

intra-coded, a second filter when said at least one of said adjacent regions is

encoded with said residuals, a third filter when said at least two of said adjacent

regions are predicted based upon two different reference frames, and said

third filter when said at least two of said adjacent regions have said absolute

difference of said motion vectors of said at least two adjacent regions said

at least one of greater than or less than a threshold value.

13.　An encoder for encoding an image comprising:

(a)　a processor adapted to identify adjacent regions in said image;

(b)　said processor examining coding parameters for said adjacent regions;
and

(c)　said processor selectively filtering at least a portion of the region
proximate the boundary between said adjacent regions based upon said
coding parameters,

wherein identifying D.C. and A.C. components for said adjacent regions and

said selectively filtering based upon a similarity of said D.C. and said A.C.

components.

14.　An encoder for encoding an image comprising:

(a)　a processor adapted to identify adjacent regions in said image;

(b)　said processor examining coding parameters for said adjacent regions;

(c)　said processor selectively filtering at least a portion of the region
proximate a boundary between said adjacent regions based upon said
coding parameters;

(d)　said processor identifying similarities between coding parameters in a
luminance channel of said adjacent regions; and

(e)   said processor controlling filtering for both the luminance channel in said image according to similarities in the luminance channel.

15.   An encoder for encoding an image comprising:

(a)   a processor adapted to identify adjacent regions in said image;

(b)   said processor examining coding parameters for said adjacent regions; and

(c)   said processor selectively filtering at least a portion of the region proximate a boundary between said adjacent regions based upon said coding parameters, are intra-coded.

16.   An encoder for encoding an image comprising:

(a)   a processor adapted to identify adjacent regions in said image;

(b)   said processor examining coding parameters for said adjacent regions; and

(c)   said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

wherein said selectively filtering is based upon determining whether at least one of said adjacent regions is encoded with residuals.

17.   An encoder for encoding an image comprising:

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(a)   a processor adapted to identify adjacent regions in said image;

(b)   said processor examining coding parameters for said adjacent regions; and

(c)   said processor selectively filtering at least a portion of the region proximate a boundary between said adjacent regions based upon said coding parameters,

wherein said selectively filtering is based upon determining whether at least two of said adjacent regions are predicted based upon two different reference frames.

18.   An encoder for encoding an image comprising:

(a)   a processor adapted to identify adjacent regions in said image;

(b)   said processor examining coding parameters for said adjacent regions; and

(c)   said processor selectively filtering at least a portion of the region proximate a boundary between said adjacent regions based upon said coding parameters,

wherein said selectively filtering is based upon determining whether at least two of said adjacent regions have an absolute difference of said motion vectors of said at least two adjacent regions at least one of greater than or less than or less than a threshold value.

19.   The encoder of claim 18 wherein said absolute difference is also in a first direction.

20.   The encoder of claim 19 wherein said absolute difference is also in a second direction different than said first direction.

21.   An encoder for encoding an image comprising:

    (a)   a processor adapted to identify adjacent regions in said image;

    (b)   said processor examining coding parameters for said adjacent regions; and

    (c)   said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

    wherein said selective filtering uses a first filter when said adjacent regions are intra-coded.

22.   An encoder for encoding an image comprising:

    (a)   a processor adapted to identify adjacent regions in said image;

    (b)   said processor examining coding parameters for said adjacent regions; and

(c) said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

wherein said selective filtering uses a first filter when said adjacent regions are intra-coded and a second filter when said at least one of said adjacent regions is encoded with residuals.

23. An encoder for encoding an image comprising:

(a) a processor adapted to identify adjacent regions in said image;

(b) said processor examining coding parameters for said adjacent regions; and

(c) said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

wherein said selective filtering uses a first filter when said adjacent regions are intra-coded, a second filter when said at least one of said adjacent regions is encoded with said residuals, and a third filter when said at least two of said adjacent regions are predicted based upon said two different reference frames.

24. An encoder for encoding an image comprising:

(a) a processor adapted to identify adjacent regions in said image;

(b)   said processor examining coding parameters for said adjacent regions; and

(c)   said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters;

wherein said selective filtering uses a first filter when said adjacent regions are intra-coded, a second filter when said at least one of said adjacent regions is encoded with said residuals, a third filter when said at least two of said adjacent regions are predicted based upon said two different reference frames, and said third filter when said at least two of said adjacent regions have said absolute difference of said motion vectors of said at least two adjacent regions said at least one of greater than or less than a threshold value.

25.   A decoder for encoding an image comprising:

(a)   a processor adapted to identify adjacent regions in said image;

(b)   said processor examining coding parameters for said adjacent regions; and

(c)   said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

wherein identifying D.C. and A.C. components for said adjacent regions and said selectively filtering based upon a similarity of sid D.C. and said A.C.

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components.

26. An decoder for decoding an image comprising:

(a) a processor adapted to identify adjacent regions in said image;

(b) said processor examining coding parameters for said adjacent regions;

(c) said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters;

(d) identifying similarities between coding parameters in a luminance channel of said adjacent regions; and

(e) controlling filtering for both the luminance channel and a chrominance channel in said image according to similarities in the luminance channel.

27. A decoder for decoding an image comprising:

(a) a processor adapted to identify adjacent regions in said image;

(b) said processor examining coding parameters for said adjacent regions; and

(c) said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

wherein said selectively filtering is based upon determining whether at least

one of said adjacent regions is intra-coded.

28. A decoder for decoding an image comprising:

   (a)   a processor adapted to identify adjacent regions in said image;

   (b)   said processor examining coding parameters for said adjacent regions;

           and

   (c)   said processor selectively filtering at least a portion of the region

           proximate the boundary between said adjacent regions based upon said

           coding parameters,

wherein said selectively filtering is based upon determining whether at least

one of said adjacent regions is encoded with residuals.

29. A decoder for decoding an image comprising:

   (a)   a processor adapted to identify adjacent regions in said image;

   (b)   said processor examining coding parameters for said adjacent regions;

           and

   (c)   said processor selectively filtering at least a portion of the region

           proximate the boundary between said adjacent regions based upon said

           coding parameters,

wherein said selectively filtering is based upon determining whether at least

two of said adjacent regions are predicted based upon two different reference

frames.

30.　A decoder for decoding an image comprising:

(a)　a processor adapted to identify adjacent regions in said image;

(b)　said processor examining coding parameters for said adjacent

regions; and

(c)　said processor selectively filtering at least a portion of the region

proximate the boundary between said adjacent regions based upon

said coding parameters,

wherein said selectively filtering is based upon determining whether at least

two of said adjacent regions have an absolute difference of motion vectors

of said at least two adjacent regions said absolute difference being at least

one of greater than or less than a threshold value.

31.　The decoder of claim 30 wherein said absolute difference is in a first

direction

32.　The decoder of claim 31 wherein said absolute difference is also in a second

direction different than said first direction.

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33. A decoder for decoding an image comprising:

  (a)   a processor adapted to identify adjacent regions in said image;

  (b)   said processor examining coding parameters for said adjacent regions; and

  (c)   said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded.

34. A decoder for decoding an image comprising:

  (a)   a processor adapted to identify adjacent regions in said image;

  (b)   said processor examining coding parameters for said adjacent regions; and

  (c)   said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded and a second filter when said at least one of said adjacent regions is encoded with residuals.

35. A decoder for decoding an image comprising:

(a)   a processor adapted to identify adjacent regions in said image;

(b)   said processor examining coding parameters for said adjacent regions; and

(c)   said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

wherein said selectively filtering uses a first filter when said adjacent regions are intra-coded, a second filter when said at least one of said adjacent regions is encoded with residuals, and a third filter when said at least two of said adjacent regions are predicted based upon two different reference frames.

36.   A decoder for decoding an image comprising:

(a)   a processor adapted to identify adjacent regions in said image;

(b)   said processor examining coding parameters for said adjacent regions; and

(c)   said processor selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters,

wherein said selectivelys filtering uses a first filter when said adjacent regions are intra-coded, a second filter when said at least one of said adjacent regions is encoded with residuals, a third filter when said at least

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two of said adjacent regions are predicted based upon two different reference frames, and said third filter when said at least two of said adjacent regions have an absolute difference of motion vectors of said at least two adjacent regions said at least one of a greater than or less than a threshold value.

37.   A computer readable medium comprising instructions for performing the acts of :

(a)   (a)   identifying adjacent regions in said image;

(b)   examining coding parameters for said adjacent regions;

(c)   selectively filtering at least a portion of the region proximate the boundary between said adjacent regions based upon said coding parameters;

(d)   identifying similarities between coding parameters in a luminance channel of said adjacent regions; and

(e)   controlling filtering for both the luminance channel and a chrominance channel in said image according to similarities in the luminance channel.

38.   A computer data signal embodied in an electronic transmission, said signal comprising instruction for:

(a)   identifying adjacent regions in said image;

(b)   examining coding parameters for said adjacent regions;

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(c)   selectively filtering at least a portion of the region proximate the

boundary between said adjacent regions based upon said coding

parameters;

(d)   identifying similarities between coding parameters in a luminance

channel of said adjacent regions; and

(e)   controlling filtering for both the luminance channel and a

chrominance channel in said image according to similarities in the

luminance channel.